



[www.HbarTutoring.com](http://www.HbarTutoring.com)

# the *h-bar* Palladium

a Math + Science Newsletter

Issue 4

06/10/15

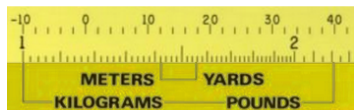
all the news that's fit to print

*e<sup>u</sup>*

education  
to the universe  
**knowledge columns**  
Reintroducing:

*the slide rule*

## kinesthetic multiplication



What were slide rules and how did they work? This vintage calculator multiplies numbers when you slide one log scale ruler by another one, using the property:

$$\log(xy) = \log(x) + \log(y).$$

Slide the bottom half to point to the number of **kg** and read the number of **lbs**, which lives a fixed distance away on the log scale. It multiplied your number by 2.2 by spacing it away a distance of  $\log(2.2)$ . Learn about the many things that slide rules can compute at the:

[Slide Rule Museum](http://SlideRuleMuseum.com).

## *h-bar* Summer Academy

We are happy to offer a summer program for advanced middle school and early high school students.

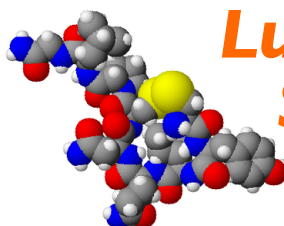
Our staff includes MIT and Caltech grads excited to offer courses in the S.T.E.A.M. areas they love.

## Science Sampler

Diverse intro to scientific methods and lives

## Lit Review

Discussion and Critique



## Lunch with Scientists

You bring your lunch  
We bring the scientists

Learn more at:

[HbarTutoring.com/Academy](http://HbarTutoring.com/Academy)

## Zoology

## Aerodynamics

## Lab Biology

## Musical Circuitry

## Algebra Bootcamp

## Rocket to Calculus!

## Artificial Intelligence

## Technical Theater

## Environmental Tech

## Inorganic Chem

## Geometry

## Philosophies

## Math in Action

## Code/Poetry+Magic{}

## Problem Solving

## Computer Programming

Session 1: **July 6 - July 23**  
Session 2: **July 27 - August 13**  
Monday - Thursday  
9am, 11am, 1:30pm, 5 pm



Throop Unitarian Universalist Church

300 S Los Robles Ave, Pasadena, CA 91106

End of session  
Meet & Greet

## Contact us:

Drs. Rose and Ronnie

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